193 everywhere only sluggish waters run in the relatively recent valleys. To all appearances a general damming up of waters has taken place due to recent block movements which have caused an enormous growth of swamps in the valleys in Urundi, especially in the north and northeast, and in the entire interlacustrine region. Its main cause is insufficient drainage in the network of streams of the Kagera River on the one hand and in that of the Malagarasi on the other, since their level of erosion has apparently been raised by more recent block movements in both areas.

The two big rivers mentioned above divide Urundi into two hydrographic systems: the larger northern system drains into the Kagera, Lake Victoria, the Nile, and, therefore, into the Mediterranean; the smaller southern one into the Malagarasi, Lake Tanganyika, the Congo River, and, therefore, into the Atlantic Ocean.

132 Since Urundi is between 2 1/2 and 4 1/2 degrees south latitude, it has, like Ruanda, an equatorial climate with two rainy seasons and two dry seasons. The rains occur soon after the sun has reached its zenith in April and October. The amount of precipitation, approximately 1,250 millimeters in the north and less than 1,000 millimeters in the south, is not great for a tropical region, yet it is still plentiful and evenly distributed. The average annual temperature fluctuates about 20 degrees Centigrade. It is higher in the east, and in the mountains of the west the thermometer almost approaches zero in July. Day after day a vigorous east wind blows across the highlands. In the mornings there are often dense mists in the valleys.

137 The warm temperature, the amount of precipitation, and the distribution of rain would lead one to expect extended forest growth in Urundi, but this is not the case. Urundi is quite predominantly grassland (Plate 1a), pasture land at high altitude, like Ruanda. This is because the natives cut down the forest [311] to make fields and pastures. Toward the east in the direction of Uha where the country is lower, the grassland gradually turns into a tree and tussock grass steppe (Plate 3b). The grass grows higher and wilder in Urundi than in Ruanda since the grassy plains

quartzite areas adjoining to the east, the latter are the more sterile and, for this reason, less populated and cultivated. One observes the same phenomenon in Ruanda. In the more humid areas where bananas are grown, the banana plantations cover large areas and thus give the illusion of a relatively dense population, whereas in fact only a few huts are to be found in them.

The Batussi and Bahutu families are rather rich in children, as in Ruanda. Individually the Batussi women are less fertile than the Bahutu women, but in general there are seldom fewer than three children in each family and in many cases (among the Bahutu) between six and eight and correspondingly more if the husband has several wives. Usually each married couple lives with its children in a single hut. However, if there are many children or several wives, each mother lives in a separate hut with her youngest children. Grandparents and unmarried adults also have huts to themselves. Thus, there are often between two and four residential huts and several huts for grain and cattle in one kraal, or several fenced-in residential huts plus outhouses are combined in one large homestead (see Fig. 1).

The settlement pattern is that of individual establishments, the fenced-in kraal, hamlet, courtyard (lugo, urugo). Each homestead stands alone, surrounded by its fig trees and its banana plantation if it is in the banana region (Plates 18, 21b). In most cases, however, there are several kraals belonging to the extended family circle, situated next to each other within calling distance so that village-like clusters (ikisagara) are formed (see Fig. 2 and Plate 19a). Outside extend the fields. Of course, this is especially true for the settlements of the Bahutu, for among the Batussi only the poorest and lowest classes cultivate the fields. The kraals or clusters of kraals belonging to the more prosperous Batussi are scattered over the grassy pastures used by their cattle and surrounded by high hedges of euphorbia and fig trees without banana groves or fields. The distances between kraal clusters

233 [312] troughs of clay are constructed near the water holds into which the drinking water is scooped. As in our Alps, the hill slopes bear the imprint of the hooves of the cattle in the form of innumerable little steps and paths since the grazing cattle will usually move along the slope in a horizontal direction which is more comfortable for grazing.

In the months after the rains the cattle can gorge themselves on green grass and they then look quite attractive, but during the dry months when all the grass is parched to a gray-brown color, the cattle become so lean that one can count all their ribs. In Urundi during the months of September and October I have seen, almost without exception, cattle which were very emaciated. Only the herds of the chiefs preserve their healthy appearance in the dry period since the best grazing land is reserved for them. The general impression is that both [137] in Urundi and Ruanda, which are both almost exclusively grasslands, good nourishing pastures are not very extensive. It is possible to wander for days over chains of hills and plains in the sterile, thinly populated quartzite areas of the east where the growth of grass is so poor that it is not worthwhile for the natives to burn it. Since the hill ridges and the valleys in the [311] populated areas of central and western Urundi are covered with homesteads and fields, insofar as the valleys are not filled with papyrus swamps, in general only the hill slopes for pastures. However, since every year the dry expanse of grass on them is burned off in order to obtain a new growth of green grass as soon as possible and to destroy the vermin noxious to cattle, the quality, the food value, of the grass [43] cannot improve. Also, if the herds multiply greatly, as in the northwestern areas of Urundi and in most of Ruanda, the pastures are soon overstocked. The Batussi and Bahutu do not grow any fodder with [246] a high food value which could compensate for the lack of good grazing land. As a result most cattle suffer from malnutrition, and if then a contagious disease is brought into the country or if it is caused in the area itself through infectious vermin, etc., the animals with low resistance succumb to it in great numbers. The available grazing land is then sufficient for the

244 there are about half a dozen varieties of the type Pisum sativum. One with a bluish fruit is supposed to have been imported by the Batussi from their original home in the lands of the Galla (No. 19, p. 283). Stuhlmann, however, assumes that the pea, which in East Africa is grown only in the highlands of the lake region, was introduced by the Portuguese from the south and spread north across the highlands (No. 28a, p. 225). In the upper mountainous areas of Urundi peas are the only cultivated plant. As on the high volcanoes of Ruanda, on the
[262] peripheral mountains of Lake Kivu, and in the Ruzizi graben, many thousand natives in the high peripheral mountains of northwest and western Urundi, up to an altitude of almost 3,000 meters, live almost exclusively on peas. Wherever the
[311] magnificent, old, virgin forest in these regions up to the watersheds is destroyed by ax and fire, it makes room almost without exception for pea fields. In the rich humus of the forest soil, the peas thrive exceptionally well, of course. As the destruction of the forests proceeds, so does the expansion of pea fields. What a miserable substitute for the wonderful and economically much more valuable forest which in the existing climate could never be restored to its former size, even if this were attempted.

Beans and peas are left to ripen fully on the "stalk." Only when the plants have withered so completely that the fruit is about to fall off by itself are they torn out and piled up in the kraals. Then they are spread out on the roofs of the huts and finally threshed with switches. The straw [52] that is not used for litter is distributed on the fields in numerous single piles, like our haycocks, and then burned so that the ashes will fertilize the soil.

Peanuts (itschjoba) and corn (ikigori) are sown in the same
243 manner as beans, by sticking them into holes. The peanuts are
244 first taken out their shells, and the corn kernels are left in water for a day to make them swell. There seem to be three types of peanuts which are differentiated as itschjoba, itschjema, and itschjansa. None of them is used for making oil. They are only
[252] eaten as a dessert and delicacy, either raw or roasted in ashes (No. 19, p. 41).

423 in return by the Europeans are simply pocketed by the mutwale:
651 Misera contribuens plebs [contributing to the misery of the people?]!

The main interest of the Mutussi feudal lord, however, is
311 not the agricultural activity of the Bahutu but his cattle herds
318 and their welfare. He is, therefore, chiefly interested in having abundant grazing land for his cattle. For this reason he is in most cases not at all enthusiastic if the Muhutu attempts to narrow down the already limited grazing area by clearing new fields for cultivation. This conflict of interests, which is of course decided by the Batussi in favor of grazing land and against agriculture, will continue even when this big country is some day opened to trade and commerce, and the Muhutu can sell his agricultural produce abroad. The conflict of
000 interests will become even more pronounced than it is at present, since the Bahutu will then attempt to increase their agricultural production and to sell more. These difficulties will only be alleviated by a thorough change in the conditions relating to pasture land and a partial shift to growing concentrated fodder and stall-feeding. These are problems which will be hard to solve in practice, but now that the central railroad has reached Lake Tanganyika and there are plans to increase the productivity of the contiguous large and populous areas, our leading statesmen in charge of colonial affairs will have to spend much thought on these questions. In the end it will be necessary to attack the fundamental evil pressing heavily upon these areas and retarding their development: the rule of the Batussi. For this purpose, however, more force is necessary than is available to us at present. If the colonial troops are not increased, the central railroad will nevertheless make it possible to concentrate military power more quickly than heretofore. Finally, the Bahutu will be with us against the Batussi when they realize that we are stronger than the latter.

241 At the end of this review of Barundi agriculture I shall
782 mention briefly a few religious customs connected with it (No. 19, pp. 20-21). The local head chief of each of the large feudal districts or provinces gives the order for the

Urundi Administration 1925—and Bishop (?) Gorju in several works dealing with Urundi, where he has been Vicar Apostolic. It lies N.E. of Tang. lake, 2 to 4 degrees S. of the Equator.

Ethnical conditions

The Urundi as well as the two neighbouring sultanates of Ruanda and Buha consist of three ethnical groups: (1) the tall, fine-featured, cattle-grazing Batutsi, of Hamitic stock, who constitute a ruling class of some fifty thousand; (2) the middle-sized, rough-featured, land-tilling Bahutu, the largest and main body of a population of over one and a half million; (3) the Pygmy hunting and pot-making Batwa, a mere handful of some thousands of outcasts.

I am reasonably satisfied that these three ethnical groups mix together more than one is generally inclined to believe: they rather seem to become social strata. At any rate there are impoverished Batutsi who till the land, Bahutu who possess cattle, and landless Batwa are not a frequent occurrence to-day. Many impoverished Batutsi have been considered as Bahutu, rich Bahutu as Batutsi. The reasons and theory I brought home were elaborated by Dr. Gerkens and seem to prove that each of the groups is of mingled stock.

Geographical conditions

The Urundi is a high country. The region between mountain to the west and the steppe to the east is a plateau, 5,000 feet high, often more, and almost completely without ligneous vegetation, except in the near proximity of habitations. Rivers and brooks have dug themselves deep into this plateau and their valleys have made it a country of more or less important hills, each of them with its own name. The bottom of the valleys is covered with swamps where papyrus grows unchecked (for native agriculture had not been successful there). The stony, grassy hill-tops are merely meadow-land. The cultivated belt normally spreads on the hill-side, with the fenced cabins of the land-tillers in the middle of fields and banana-plantations. Only persons of rank dwell in the higher region.

Typical of Urundi scenery as seen from a favourable observation point are the three belts running along one another: below, the ashy green of the papyrus; above, brownish stones and light-coloured grass, sometimes with the rugo of a chief or of his deputy; in between the deep shining green of the banana-trees. Though the population often reaches 350 per square mile, the habitations of most land-tillers remain invisible amidst the banana-trees where they are hidden, and only at the time when meals are prepared does the peacefully ascending smoke betray their presence there.

[P. 13 (A)]

134 cultivation of the famous plante médicée /Tr.: "Medici plant"/
24| (tobacco), the sale of which provides a living for a number of families. /26/

The vast Rwrere plain covers nearly half of the Bugoyi province.
133 Not a spring or brook is to be found there. The rain water immediately
312 drains beneath the lava, which is covered by a mere 50 or 60 centimeters of arable soil. The inhabitants are compelled to cover distances varying between 10 and 20 kilometers, round trip to draw water from the brooks of the Sebeya or the Mutura. During the rainy season, they carefully save the water that collects in the crags of rocks or in small moats dug by each person around his dwelling. The owners of banana groves use the water held by the thicker husks of the banana trees. These are split lengthwise with a knife, and produce water lightly mixed with potash. The natives get used to drinking this liquid without any repugnance.

The Bagoyi who live in the mountainous area are better off than the plains people as far as water is concerned.

The northern area, called Bigogo, consists entirely of pastures.
133 It is inhabited by the herding Batutsi, who own numerous herds of cattle, the wealth of the country.

These same lands of volcanic origin, gave birth to a beautiful
[137] forest where bamboo grows along with some rare species of trees. It spreads east of Kivu in a north-south direction.

● [311] The natives, ever in search of fertile fields and charcoal, have made terrible inroads into it. This is why large gaps are to be found in it.

The central and eastern provinces, the Nduga, Bwana-Mkali, Gissaka, Buganza, etc., are made up of long rolling hills, nearly
[311] always separated by small valleys which are often transformed into marshes and which are very useful for summer planting.

The Buliza, Bussigi, and Luhanga are long plateaus where numerous herds of goats, sheep, and cows graze. These areas lie at an altitude of about 2, 200 meters. /27/

Ruanda also has lakes, the most important of which is Kivu, which is 120 kilometers long and from 40 to 50 kilometers wide.

224 They climb trees like squirrels to escape danger or to be on the lookout.
[48] They may spend a week or even two without returning home when tracking game, especially if an elephant is at stake. The wooded area is their domain. They know its thickets and crannies, and they track animals everywhere, stealthily through thorns and scrub, without ever running the risk of getting lost.

361 Pygmies live in groups of six or seven families scattered through
423 the forest, which they have divided up like family property by settling their respective boundaries so as not to get in each other's way.

578 Hunting in a forbidden zone or even in a contested one has given rise to more than one bloody quarrel among brothers and friends.

There are hardly 15 of such groups of Negrillo hunters, who would find it hard to subsist if meat were their only food.

● 311 Willfully set fires for clearing purposes which have impoverished the forested land, as well as new political conditions which are gradually transforming the society, contribute to the dwindling of their food resources.

Soon, therefore, we may see the last representatives of those woodsmen join their other compatriots, the potters scattered through the Bahutu villages, or else start farming as some of them are already doing.

563 The Batwa live as a group apart. They do not mix with the Bahutu and much less with the Batutsi. They are a despised caste.

631 Ruanda was not politically united from the beginning. In the following pages we shall see that it was parceled /37/ into a considerable number of tiny kingdoms and small independent principalities. The lands inhabited for the longest time seem to have been the Ndorwa, Buganza, Gissaka, and Bugessera in the northeast, the Nduga and Munyambiriri in the center, and the Bwana-Mkali in the southeast. The areas located in the notthwest, the Mulera, Bugoyi, Bgisha, Kanage, etc., were slowly won over the forest and settled by people who came from neighboring regions.

642 Politically, Ruanda is an absolute monarchy.

The Banyarwanda belong to the type of society that is "more stratified, characterized by the establishment of a centralized power whose automatically binding warrants are transmitted to the humblest

[i.e., the Batwa. - Analyst]

428 Only boys share in the real estate (1).

1. As exceptions to this rule, one finds a few joint patrimonial domains which the co-heirs exploit together under the frerage (or frareshe). This kind of landed property is called isage (or ingaligazi).

The oldest son, or at least the one appointed by the dying man to succeed him, receives a share slightly larger than that of his brothers, owing to his right of primogeniture. If there are three heirs, the property is divided into three lots of equal size except for one field or one small banana grove.

This /latter/ parcel is called umusaya and is added to the share of the first heir.

Cattle and sheep are divided equally among them.

311 One does not find any free or abandoned land in Ruanda. There
423 may be more or less extensive areas that lie fallow because they are not very fertile, or because the presence of wild beasts makes them too dangerous, or because they are too remote from inhabited centers or too extensive in relation to the population size, but they are not on this account res nullius /Tr.: nobody's property/. Their owners always retain the right to use them and take effective possession of them whenever they wish.

Forests, mountains, moors, marshes, and bogs are divided into a multitude of lots whose owners are publicly known.

[661] Through an abuse of authority, the chiefs may temporarily reserve for themselves part of the plateaus, valleys, or marshy lowlands to graze their cattle.

In spite of this, their subjects retain proprietary ownership of these lands and grasslands and they will not fail to assert their rights at the first opportunity, for example, when a chief departs or when he is replaced.

In some regions it frequently happens that the arable plots no longer meet the /48/ needs of the population. Then those men who

423 are least fortunate or most enterprising get together to sell or exchange
[311] their plots and go to the edge of the forest to buy a piece of land or to develop the one they owned there.

From then on, the clan to which they belong includes an additional village.

As in Europe the sale and lease of fields and banana groves is made in the presence of witnesses. Land boundaries are marked with stones and other conventional signs.

A felled tree, a displaced stone, some ground which has been broken in a neighbor's field over the dividing line, such things cause frequent litigations that give rise to disunity within families and among tribes over long periods of time.

The Munyarwanda /sing. of Banyarwanda/ remains attached
361 to his native village, to his plot of land. He does not feel the need to move elsewhere, to change his domicile, as do the Blacks settled east and west of Tanganyika.

Ruanda soil is richer by far and sustains numerous and varied
[134] crops.

In addition to the banana grove, which is the most important
245 part of his property, the Munyarwanda has begun to plant trees and to cultivate coffee, which brings in large profits to which he was not
[231] accustomed. Ownership of a small herd of cattle or sheep makes his home even dearer to him.

It may be said that his home life is more stable than in neigh-
593 boring areas, and that he leaves it only rarely (1).

[166]

1. The Blacks, too, are familiar with nostalgia and home sickness. The fear of a vendetta or the attraction of large salaries may temporarily induce the natives to expatriate themselves. Sooner or later, however, they return to the cradle of their ancestors. The Banyarwanda cite characteristic instances of this.

194 pronouncing 's' and that their speech is more aspirated. However, I noticed this not only among the Batwa but also among the true Pygmies on the Ituri. Father Classe says that their language
197 seems to be midway between Kigwe (Kissukuma), Runyambo, Ruziba, and Luganda. In other words, it is a dialect of the interlacustrine group.

Father P. Barthelèmy told me that the Batwa who accompanied him on his trip up the volcano spoke an idiom among themselves which was unfamiliar to him. He could not say whether this was a northern dialect similar to Ruhunde or a separate language.

563 Although everyone finds it disgusting to eat with a Mutwa,
186 the latter despises the Muhutu who must till his field and go about his daily chores with a bent back. The free Mutwa hunter from the forest in turn despises the Batwa living in the villages whose chief occupation is pottery. He calls them, scornfully, banyamikenke, "sons of the grass". (3)

3. Parisch, F. R. Von, "Zwei Reisen durch Ruanda 1902 bis 1903," Globus, Vol. 86 (1904), p. 76.

563 The Forest Mutwa is very proud of his unrestricted way of
674 life and his independence. He regards the forest as his property in which he has completely free rein, and he feels that the robbing of intruders who cross the forest borders is his sacred right. He defends his forest from intruders just as the Muhutu does his fields.

Even the Bahutu acknowledge this right of the Batwa to a certain extent. They allow themselves to be robbed in the primeval forest without offering the least resistance, for they maintain that without [132] the consent of the Batwa they would not even get out of the forest. This is quite possible, since the hunters are so well oriented in the forest that they could find ample opportunity to ambush and shoot their victims.

563 Despite these advantages, the Batwa's struggle against the
●311 encroaching Bahutu is completely hopeless. The dreaded hunters are being pushed back everywhere by the farmers. With the

563 destruction of the forest their independence is at an end, and they
311 become pariahs.

When guerrilla warfare can no longer stem the flood of farmers driven toward the forest because of the land shortage, there is nothing left for the Batwa but to complain of the new state of affairs. This is the story with which Kahima greeted me when I paid him a visit with Father L. Delmas. Originally Kahima's Batwa lived in the primeval forest, but constant clearing had so shifted the forest border that eight huts were already outside the forest, while the rest were still scattered within it. The Batwa, however, do not yet till their own fields. At most their women help the Bahutu in the fields and obtain food in payment.

563 In Ruanda one does, however, find cases where Batwa turn
[341] to agriculture out of dire necessity. Thus, in the vicinity of Ruasa there is a Mutwa rainmaker who is a leper. When his trade became less profitable because of the growing missionary influence, he began tilling a field. In one respect, however, he remained a true Mutwa: he was unable to keep any small livestock; in no time it had all been killed and eaten.

The relationship between the Forest Batwa and the Banyaruanda is the same as that between the Pygmies and the full-sized Negroes. Each Batwa group recognizes a Ruanda chief as its head, to whom they bring the yield from hunting in exchange for agricultural produce. This vassal relationship existed between Kahima and Chuma.

We must, however, point out a difference. The Batwa acknowledge the sovereignty of the ruler of Ruanda. From time to time they bring the king presents. These are presented to the king through the mediation of their Muhutu patron, Chuma, who is said to be the king's client (mugaragu).

Anthropologically, the contrast between Batutsi and Batwa is even greater than between the farmers and the herdsman aristocracy, but even so we cannot overlook the strong political solidarity of the privileged and the pariahs. If a Mututsi sacrifices sheep, the Mutwa eats the meat. When he slaughters anything, he does not forget the Mutwa. Between these two minority elements there is

241 412 times, but that later it was replaced by a long-handled one with a hole bored at one end. They also said that at present it differs from the Ruanda hoe only in the fact that it is higher.

The very primitive wooden hoe, less frequently used in Ruanda, is somewhat similar to the older form. It, too, consists of an unevenly forked branch, but in this case the shorter end is pointed and used as the hoe. The few samples which I saw in the region had an iron tip on the pointed end. The people I questioned about it said that formerly this tip had not been used. [171] Later I saw identical hoes among the Niloto-Hamitic Kakwa; these were without the iron tip. I was told that they were used exclusively for clearing.

In Ruanda the women as well as the men use the hoe. In this respect Ruanda is very different from the other regions of the northwest where hoe culture is practiced.

311 There are large aggregates of tilled fields only in the north and the west and along the northern shore of Lake Mohasi. Otherwise the fields are merly oases in large sections of pasture-

[142]

Fig. 26. Wooden Hoe with Iron Tip from Mulera. (1/2 actual size. L15061.)

land and bush.

311 245 The banana groves usually occupy the ridges of hills; at least this is the case in Kissaka, Nduga, and Mulera. In Bugoye and in southern Bgisha where the settlements were very high, the groves are somewhat lower. In Bugoye where the lava is very much decomposed, there are large [138] banana plantations on the lava plains themselves. In Bgisha they are somewhat higher along the edges of these plains. Bananas bear almost all year round except in the driest season. The plants are hoed, but otherwise they require little care. The banana crop is used chiefly to make beer (nzoga).

243 The millet fields lie chiefly on the slopes of the hills.
311 They are hoed and seeded after the first rain. Some time later they are weeded. The main harvest takes place in the middle of the dry season. I saw a harvest in Kissaka during the latter half of July. In Nduga it was already over in August. In Mulera the harvest is said to be at the end of February and in Bgisha at the end of November and the beginning of December.

244 Sweet potatoes are planted in marshy lowlands and irrigated
311 fields. They are the staple during the dry season when other supplies are exhausted and the millet is not yet ripe.

The land at the highest altitude is used for peas, although one often finds fields of peas at a lower altitude than banana groves. The highest fields I saw were on Mount Ndisa, high above the settlements, probably extending up to 2,000 meters. I could not discover the reason for the high location of these fields. [139] To judge from the surrounding country, I did not have the impression that it was so densely populated that the people were forced to lay out their fields so inconveniently. Peas and beans are harvested at the end of the rainy season.

251 Field crops, with the exception of bananas and sweet potatoes, are kept in storehouses (kigega). Millet is cut off short and left lying unthreshed until it is needed. Only then is it threshed in small quantities in mortars and winnowed by the wind on large woven shields. Bananas and sweet potatoes are brought from the plantations as needed. The bunches to be used for making beer are kept in the huts to continue ripening. Here considerable stores of other crops, especially beans and peas, are kept in large baskets (umuhiri) made air tight with cow dung.

314 Forestry. In Ruanda we can hardly speak of forest cultivation, despite intensive farming and the widespread cultivation of the land in densely populated areas where forests have shrunk to a minimum. The Muhutu is the worst enemy of the forest. He uses wood to build his huts and storehouses, his boats and tools, and to cook his food, but he does not husband it, and in this respect he is no better than the peasant of eastern Europe.

311 According to unanimous reports by the natives, the country of Ruanda is undergoing a rapid change, and deforestation is making great advances. Formerly the country is said to have been covered

311 with extensive forests which were destroyed by farmers, so that at the present time in northern Nduga, for example, there are no forests to be found. Quite recently the forest boundary has receded in Mulera and Bugoye as a result of colonization. When I visited

[412]

Fig. 29. Axe from Mulera. (1/6 actual size. III E 13111. Handle: 68 centimeters long.)

Fig. 30. Axe from Mulera. (1/6 actual size. III E 13060. Handle: 60 centimeters.)

Fig. 31. Bush Knife from Mulera. (1/6 actual size. L 15036.)

the Batwa of Chief Chuma, I saw that half their huts were already surrounded by Bahutu fields; the others were still hidden in the forest. In only a few years the farmers have penetrated this far; the Batwa could all still remember the time when their village lay deep in the forest.

412 The larger trees are felled with axes; smaller ones and the brush are cut with sickle-shaped bush knives. The axes (intolezo)

361 independent man lives with his women, children, and servants
[558] (bagaragu). The establishments of the well-to-do are quite large and often embrace a dozen or more huts. Poor people have only one or two huts. The large settlements of the Batutsi, with the exception of those in the northwestern provinces, are all widely scattered in the grasslands and are conspicuous by the tall euphorbia hedges and trees which surround them.

In eastern Mpororo scattered huts occur only in the cultivated areas; they occur somewhat more frequently near large Bahima kraals, as, for example, that of Kitaraya. South of Kitaraya, Batutsi settlements hidden behind their euphorbia hedges predominate. On Lake Mohasi the scattered Bahutu settlements and their banana groves again appear. Here Batutsi kraals are rarer.

In Kissaka and Nduga there are Bahutu settlements on the edges of the banana groves, but since bananas are confined to specific regions because of soil conditions, a certain concentration of settlements has come about.

[31] Around Nyanza, the residence of Musinga [king of Ruanda], we find few and widely scattered settlements, because the land is reserved as pasture for the king's cows.

In Mulera where the entire country is under cultivation, there is again a regular distribution of farm settlements. However, we also note a tendency for relatives to move closer together for safety.

In Bugoye, which shows influences of the Forest Bantu, we find many compact groups of huts almost resembling villages, although these settlements vary a great deal in their structure. Here the
[65] hill dwellers, from whom their mugabo [clan elder] collects taxes which he hands over to the proper mutware (ku butaka, ku muheto, etc.), have all joined together in a single settlement. [200] In Bugoye we find settlements of over 100 inhabitants. The largest settlements are in Bgisha, north of the chain of volcanoes. They sometimes have over 100 huts.

The Banyabungu also live in large villages which are very well kept and have high fences. (1)

1. Kandt, R., Caput Nili (Berlin, 1904), p. 377.

9:Maquet E-5 (1949-1951) 1961 FO42 Rundi FO42

There is as much as a one-month range of variations in the dates of the rainy and dry seasons each year. The precipitations are very irregular. Sometimes for a few weeks there is heavy rainfall lasting ten or twelve hours followed by a few dry days, at other times there is a 2- or 3-hour shower every day. Besides this fundamental irregularity there is no uniformity throughout the country. Owing to the very uneven relief, neighbouring regions or even neighbouring groups of hills and valleys, may have quite dissimilar climates.

Although it is believed that the country was covered with forest in the remote past, now only three per cent. of the surface of Ruanda is woodland; even if savannah with trees is taken into account the figure is not brought up to more than 6·5 per cent.[4] At the beginning of the century the figures were almost certainly not higher, and very likely lower. Indeed, the policy of the Administration has been to attempt to protect by regulation the forests which were left and to promote the replanting of trees. The present-day typical Ruanda landscape, eucalyptus-covered hills and roads bordered by three or four lines of trees, is new. Fifty years ago the country had an even more denuded appearance than it has today.

The result of the scarcity of trees in a country of steep hills has been erosion. Torrential rainfall has washed off the more fertile top soil. The deterioration of the ground has been a long process which has not yet been reversed. The north-western part of Ruanda provides an exception to the general poverty. Here the soil is of volcanic origin, formed from recent lava, and rich. The land at the bottom of valleys everywhere is, of course, notably better than on the slopes.

A good top-soil is important not only for cultivation: allowing a slow infiltration of water, it helps to form subterranean watersheds situated not too deeply underground. A decrease in this top-soil has had the effect that some of these practically superficial water reserves which feed sources have drained away. I have been told more than once by old people that in such or such a place there was a water source when they were young. When digging a well now one has to go very deep.

These phenomena, erosion, impoverishment of soil, and drying up of sub-soil, are not to be attributed only to the action of the purely natural factors mentioned (the heavy rainfalls and the

[4] Ministère des Colonies, 1951b, p. 331.

9: Maquet E-5 (1949-1951) 1961 FO42 Rundi FO42

The Twa are thought to have been the first inhabitants of Ruanda. This may be inferred from the general reconstruction of the vast human migrations that are supposed to have taken place in Africa in the remote past, and according to which Pygmies and Pygmoids would appear to be the most ancient inhabitants of that part of Africa. Whatever the validity of this hypothesis, the Twa, being hunters and collectors of fruits, seeds, and roots, did not greatly modify the natural vegetal cover of the country.

It was left to the Hutu hoe-cultivators to begin the transformation of the country. The time of their arrival, either after or contemporary with that of the Twa, is immaterial in this connexion. The important fact is that the Hutu had to begin the clearing of grasses, shrubs, and bushes and eventually the felling of forests to make their fields. The extent to which this process of deforestation had been carried out before the arrival of the Tutsi is difficult to assess. It is unlikely, however, that the Hutu were so numerous as to have to cultivate such considerable tracts of the country as to disrupt its natural equilibrium. It is very likely that the increase of population and the cattle-pressure following the Tutsi arrival has been a determining factor in this processs.

The Tutsi immigration into the country is an historical fact attested by the traditions of Ruanda and of neighbouring peoples. Their occupation of Ruanda is an episode of the great southbound pastoral migration which resulted in the formation of the different societies which Baumann terms *Circle of the Lakes*,[7] Schapera, the *Lacustrine Bantu*,[8] and Meinhard, the *Interlacustrine Province*.[9] Pastoral peoples who according to Seligman's classification were 'half Hamites' (probably of eastern Hamitic origin),[10] for an unknown reason migrated with their large herds of long-horned cattle into an area delimited in the west by the Central African rift valley from Lake Tanganyika to Lake Albert, in the north and east by Lakes Kyoga and Victoria, and in the south by a line running westwards from Muanza Bay (Lake Victoria) to the Malagarasi River. Incorporating the Bantu agriculturists previously settled in that area, they constituted a number of political units (such as Nyoro, Toro, Nkole, Ganda, Sogo, Mpororo,

[7] Baumann and Westermann, 1948, pp. 213-23.
[8] Schapera, 1929, p. 83.
[9] Meinhard, 1947a and b. See also Roscoe, 1924.
[10] Cf. Seligman, 1930, p. 97, pp. 157 ff.

9:Maquet E-5 (1949-1951) 1961 FO42 Rundi FO42

rights over certain areas except in the north of Ruanda (Mulera, Rwankeri, Bushiru, Bigogwe) where the Tutsi occupation had been more superficial. I have been told that there the soil belonged to the patrilineage and that there was no land or cattle chief. From the point of view of the individual, however, the situation was very similar: he inherited a share of his father's tract. The difference was that, if the part were insufficient, he had to apply for more to the lineage head instead of to the land-chief, and a plot left without heirs returned to the patrilineage instead of the political authority.

The person entitled to the use of a plot could not sell his right but could let the tract. The rent was about one hoe every other year plus a jug of beer each harvest. The tenant was not permitted to settle by building a hut or planting banana trees.

The Twa resented very much the expansion of fields and pastures in the forests they regarded as their possession. The authority was not concerned with the way they divided it into hunting areas.[1]

2. RIGHTS OVER CATTLE

The rights over each head of cattle were also manifold. Property in the Western sense was split up into different aspects.

A global right existed over all Ruanda cattle, even sheep and goats, by which the king could claim actual possession of any of them. The mwami used this right more frequently, it seems, over cattle than over land. An important chief indulging in intrigues regarded as dangerous by the king might find himself dispossessed of all his cattle. The king's right over all the cattle of Ruanda was a constant threat which seems to have very effectively deterred the Tutsi of the ruling set from becoming too independent.

Another right was very similar to our bare ownership. The person who had it was not in possession of the cow but could at any time claim possession of the animal and the heifers and cows produced by that beast since the time when the possession had been transferred. This was the right of the lord (*shebuja*).

In contrast there was the usufruct right with respect to cattle. The person endowed with it could dispose of the milk, the male increase of the cattle, and the dead cows. This was the typical right of the client (*garagu*).

[1] For a more extended account of the land tenure system in traditional Ruanda, see Maquet and Naigiziki, 1957.